1. (Amended) A method of manufacturing thin film transistors comprising the steps of:

(a) forming a plurality of island-shaped semiconductor layers on a substrate having an insulative surface;

(i) forming a gate insulating film on each of the semiconductor layers;

(ii) forming a gate electrode on the gate insulating film over each of said semiconductor layers;

(b) implanting dopant into first regions at outsides of a region designated for a channel region under said gate electrode in each of said semiconductor layers directly or through a thin insulation film whose thickness is equal to or less than 50nm by ion implantation to form lightly doped regions; and

(c) implanting dopant into outer regions within said first regions in each of said semiconductor layers directly or through said thin insulation film to form heavily doped source/drain regions whose impurity concentration is higher than that of said lightly doped regions;

wherein said ion implanting steps (b) and (c) are so selected that hydrogen ions are also implanted into said lightly doped regions and said heavily doped source/drain regions, but not into said channel region under said gate electrode.